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*Primary Examiner*—David P Porta

*Assistant Examiner*—Yara N Green

(74) *Attorney, Agent, or Firm*—Lisa K. Jorgenson; Andre M. Szuwalski

(58) **Field of Classification Search** ..... None  
See application file for complete search history.

(57) **ABSTRACT**

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A radiometer sensor includes a target plate and a micro-mechanical spring which supports the target plate above a base support. This construction allows for displacement of the target plate in a direction perpendicular to the base support in response to radiation which is received by a top surface of the target plate. The sensor is enclosed within a housing that defines a sealed interior chamber within which a vacuum has been drawn. The target plate preferably is non-deformable in response to received radiation. Capacitive or piezoelectric sensors are provided to detect the displacement of the target plate, and the measured displacement is correlated to determine a received radiation level. Radiometer sensor output signals are quantized and signal processed so as to make a radiation level determination.

**33 Claims, 3 Drawing Sheets**

